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Alexander Channing Ho

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EXAMINER

JEAN GILLES, JUDE

ART UNIT

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/905,117	<b>Applicant(s)</b> HO, ALEXANDER CHANNING	
	<b>Examiner</b> JUDE J. JEAN GILLES	<b>Art Unit</b> 2443	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,6-33 and 36-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,6-33 and 36-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |



### **DETAILED ACTION**

This Office Action is a follow-up to Notice of Withdrawal from Issue Branch (PTOL-67) dated 01/21/2009.

#### ***Withdrawal from issue***

1. The MPEP § 1.313 Withdrawal from issue section states:
  - (b) Once the issue fee has been paid, the Office will not withdraw the application from issue at its own initiative for any reason except:
    - (1) A mistake on the part of the Office;
    - (2) A violation of § 1.56 or illegality in the application;
    - (3) Unpatentability of one or more claims; or
    - (4) For interference.

As noted in the Notice of Withdrawal from Issue Branch (PTOL-67) filed on 01/21/2009, the application has been withdrawn from issue and a non-final rejection is submitted below because of (3) unpatentability of claims 1 and 6-33, and 36-38 as examined below.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 6-33, and 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Granade et al., U.S. Patent App. Pub. 20020103881, in view of RFC 2616 and Mighdoll et al., U.S. Patent No. 6073168.

Regarding claim 1, Granade teaches the invention substantially as claimed by disclosing a method for performing on the fly transcoding of content provided to mobile devices. Granade teaches receiving by a mobile server a request for content from a mobile device specifying a type of the mobile device (pars. 69-70 ) mobile device sends HTTP get message requesting a web page from the mobile server where the header includes user agent and accept strings which, in combination, specify a device type). Granade teaches a mobile server that, responsive only to the request, fetches the requested content in a reference format and converts the fetched content from the reference format to a format suitable for the mobile device (pars. 29, 42, 46, & 71 mobile presentation server retrieves content and facilitates rendering results). Granade teaches that the mobile server delivers the content to the mobile device (par. 71).

Granade does not specifically teach that the request to the mobile server includes an address of the requested content nor does Granade teach the first two steps of the method directed to server redirection.

RFC 2616 is the specification for the HTTP version 1.1. The specification teaches that a request/get message must have an address (i.e., a URL or URI) specifying the resource to be returned by the server (Section 5.1, p. 30 as printed). It would have been obvious to one of ordinary skill in the art at the time the invention was made based upon a basic knowledge of the HTTP specification as in RFC 2616 that Granade implicitly teaches a method in which the mobile client's request identifies the requested resource using an address (i.e., a URL). A person of ordinary skill in the art would have recognized this implicit disclosure based on the fact that the target resource is a required part of the HTTP request and a URL is the most common method of specifying a resource.

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RFC 2616 also describes server redirection. RFC 2616 teaches a method in which a server redirects a client to a different web server when a resource has either permanently or temporarily moved (Section 10.3, pp. 52-55 as printed). Mighdoll describes the HTTP redirection as disclosed in the RFC 2616 in a manner that is easier to understand (col. 12 line 49 to col. 13 line 14). The cited section of Mighdoll also teaches that redirection is designed to support changes in the location of resources. When a client is redirected to a different server, the forwarding address/URL in the redirect is different from the one in the original request. A person of ordinary skill in the art at the time the invention was made would have recognized based on Mighdoll and RFC 2616 that the resources currently served by a one server could have been served by a different server in the past (i.e., resources move). A person of ordinary skill in the art would have recognized, based on RFC 2616 and Mighdoll's disclosure, the value of having the prior server redirect requests to the server where that resource is currently hosted.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Mighdoll and RFC 2616 regarding redirection with the teachings of Granade by having servers that used to serve URL's now served by the mobile application server redirect any requests to the mobile application server. This combination would have been obvious because it is part of the HTTP protocol specification and the flexibility gained by supporting the movement of resources between servers.

The combination of Granade in view of RFC 2616 and Mighdoll therefore teaches a method comprising:

Receiving, by a first server, a first request for content from a mobile device (mobile device sends request to "old server");

Responsive to the first request for content, sending, by the first server, an address of the requested content in a reference format to the mobile device ("old server" redirects client to mobile application server by providing a forwarding URL pointing to the mobile application server);

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Receiving by a second server, a second request from the mobile device for the content subsequent to the first request for content (mobile application server receives get from mobile device including the forwarding URL), the second request received from the mobile device being different from the first request received from the mobile device (the request is different because the URL is different and it was sent as a separate message), the second request specifying an address of the requested content and a type of the mobile device (the mobile device's request includes the forwarding URL and the information in the header specifying the user agent and its capabilities);

Responsive only to the second request, fetching, by the second server, the requested content in the reference format from the specified address and converting, by the second server, the fetched content from the reference format to a format suitable for the user device (mobile application server used only the request it received to retrieve content and adapt it into a form specific to the type of mobile device);

Delivering the converted content to the mobile device (mobile application server returns the content to the mobile device).

Regarding claims 6-33, and 36-38, the combination Ganade, RFC 2616 and Mighdoll teaches:

6. (Previously Presented) The method of claim 1, wherein the second server includes hardware (see Mighdoll, hardware server No. 4). The same motivation and reason to combine utilized for the rejection of claim 1 is also valid for this claim.

7. (Original) The method of claim 1, wherein the first sending step sends the address of the requested content within a base file (See Mighdoll; fig. 5, item 501; column 5, lines 49-60; col. 6, lines 8-22). A document request is received from an HTTP client. As the received request here contains a URL, it is customary for an ordinary skill

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in the art to embed a URL within an HTTP request message within an HTML/XML base file, to facilitate collaboration in a request/response type of setting between a HTTP client and a HTTP server.

8. (Original) The method of claim 1, wherein the address includes a Universal Resource Locator (URL) of the requested content (Mighdoll; column 5, lines 55-60). The same motivation used for the rejection of claim 7 is also valid for this claim.

9. (Previously Presented) The method of claim 1, wherein the converting step carries out at least one of the following steps:  
re-sizing the requested content;  
converting the requested content from color to black and white;  
cropping the requested content;  
dithering the requested content,  
flipping the requested content, and  
changing a number of colors of the requested content (see Granade; par. 0010, 0039; see that the format suitable for the mobile device contains any number of the steps above).

10. (Original) The method of claim 1, further comprising a step of storing a copy of the converted content in a cache memory (see Granade; 0029, and 0030).



11. (Original) The method of claim 10, wherein the delivering step delivers the copy of the converted content from the cache memory if a valid copy of the converted content is present in the cache memory (see Granade; 0029, and 0030; see that the methods are invoked and stored and passed to be compared to mobile presentation server for format and display adaptation to the mobile device).

12. (Original) The method of claim 1, wherein the type of mobile device includes make and model information of the mobile device (Granade; par. 0029; and 0058; see that make and model are two of the many characteristics of a mobile device).

13. (Previously Presented) The method of claim 1, wherein the second server stores a configuration table associating the type of mobile device with display characteristics of the mobile device (Granade; par. 0029; and 0058).

14. (Original) The method of claim 13, wherein the converting step includes a step of accessing the configuration table and converting the requested content to the format specified by the display characteristics associated with the type of the mobile device (see Granade; par. 0010, 0039).

15. (Original) The method of claim 1, wherein the requested content includes an image and wherein the converting step includes a step of changing the resolution of the image (see Granade; 0029).

16. (Original) The method of claim 1, wherein the delivering step delivers the converted content to the mobile device at a selectable bit rate (see Granade; par. 0061; fig. 3, items 310-316; selecting the bit rate depends directly on the choice of which adaptor is used for data conversion).

17. (Original) The method of claim 13, wherein the content is of a type selected from a group including image, video, audio, audio stream and video stream (see Granade; 0024, and 0027-0029).

18. (Original) The method of claim 17, wherein the reference format is different for each type of content (see Granade; par. 0061; the reference format depends on the conversion choice).

19. (Previously Presented) The method of claim 1, wherein the second server is a software module and wherein the address of the content in the reference format is passed as an argument to the software module (Granade; par. 0081; see that the mobile application server 1014, mobile presentation server components 1016 can all be represented as software modules and it would have been obvious for an ordinary skill in the art, at the time the invention was made to us programming arguments to reference such software modules as indicated by the Applicants).

20. (Currently Amended) A computer system configured to deliver content to a mobile device, comprising:

a first server that includes hardware and that is configured to deliver, responsive to a first request for content from the mobile device, an address of a content in a reference format responsive to a request for the content from the mobile device (See Granade;

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pars. 69-70), and a first proxy server configured to receive a second request from the mobile device for the content, the second request received from the mobile device being different from the first request received from the mobile device, the second request including the address of the requested content in the reference format and a type of the mobile device, to fetch the content at the received address responsive only the second request only, to convert the fetched content from the reference format to a format suitable to the type of mobile device and to deliver the converted content to the mobile device, wherein the first proxy server is configured to maintain a configuration table associating the type of mobile device with display characteristics of the mobile device and wherein the first proxy server is further configured to access the configuration table and convert the requested content to the format specified by the display characteristics associated with the type of the mobile device (see Granade; par. 29, 42, 46, and 71; figs. 1, 7, and 8).

Granade does not specifically teach that the request to the mobile server includes an address of the requested content nor does Granade teach the first two steps of the method directed to server redirection.

RFC 2616 is the specification for the HTTP version 1.1. The specification teaches that a request/get message must have an address (i.e., a URL or URI) specifying the resource to be returned by the server (Section 5.1, p. 30 as printed). It would have been obvious to one of ordinary skill in the art at the time the invention was made based upon a basic knowledge of the HTTP specification as in RFC 2616 that Granade implicitly teaches a method in which the mobile client's request identifies the requested resource using an address (i.e., a URL). A person of ordinary skill in the art would have recognized this implicit disclosure based on the fact that the target resource is a required part of the HTTP request and a URL is the most common method of specifying a resource.

RFC 2616 also describes server redirection. RFC 2616 teaches a method in which a server redirects a client to a different web server (the first proxy server) when a resource has either permanently or temporarily moved (Section 10.3, pp. 52-55 as printed). Mighdoll describes the HTTP redirection as disclosed in the RFC 2616 in a

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manner that is easier to understand (col. 12 line 49 to col. 13 line 14). The same motivation and reason to combine utilized for the rejection of claim 1 above is also valid for claim 20. By this rationale, claim 20 is rejected.

21. (Original) The computer system of claim 20, wherein the first proxy server is a software module (Granade; par. 0081; see that the mobile application server 1014, mobile presentation server components 1016 can all be represented as software modules and it would have been obvious for an ordinary skill in the art, at the time the invention was made to us programming arguments to reference such software modules as indicated by the Applicants).

22. (Original) The computer system of claim 21, wherein the software module runs on the first server (Granade; par. 0081; see that the mobile application server 1014, mobile presentation server components 1016 can all be represented as software modules).

23. (Original) The computer system of claim 21, wherein the software module runs on at least one third server that is distinct from the first server (see Mighdoll; remote server 4). It would have been obvious for an average skill in the art to utilize any of the remote servers of fig. 1 apart from the first server to provide the information requested from the mobile device using the redirection techniques of Mighdoll, thereby improving efficiency in systems where information is categorized and stored on multiple backend servers.

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24. (Previously Presented) The computer system of claim 20, wherein the first proxy server includes hardware (see Mighdoll; fig. 1, server 5, and 4). The same motivation and reason to combine used for the rejection of claim 20 is also valid for this claim.

25. (Original) The computer system of claim 24, wherein the first server and the first proxy server are coupled to one another by a computer network (see Mighdoll; fig. 1, server 5, and 4; see internet 3, connecting the different servers and clients of the system). The same motivation and reason to combine used for the rejection of claim 20 is also valid for this claim.

26. (Previously Presented) The computer system of claim 25, further including a plurality of second proxy servers each of the plurality of second proxy servers being configured as first proxy servers and being coupled to a computer network (see Mighdoll; fig. 1, servers 5, and 4; see internet 3, connecting the different servers and clients of the system). The same motivation and reason to combine used for the rejection of claim 20 is also valid for this claim.

27. (Original) The computer system of claim 26, wherein at least some of the plurality of second proxy servers are geographically separated from one another (see Mighdoll; fig. 1, servers 5, and 4; see internet 3, connecting the different servers and clients of the system). The same motivation and reason to combine used for the rejection of claim 20 is also valid for this claim.

28. (Original) The computer system of claim 20, wherein the first server is configured to send the address of the requested content within a base file (See

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Mighdoll; fig. 5, item 501; column 5, lines 49-60; col. 6, lines 8-22). A document request is received from an HTTP client. As the received request here contains a URL, it is customary for an ordinary skill in the art to embed a URL within an HTTP request message within an HTML/XML base file, to facilitate collaboration in a request/response type of setting between a HTTP client and a HTTP server.

29. (Original) The computer system of claim 20, wherein the address includes a Universal Resource Locator (URL) of the requested content (Mighdoll; column 5, lines 55-60). The same motivation used for the rejection of claim 7 is also valid for this claim.

30. (Previously Presented) The computer system of claim 20, wherein the first proxy server is also configured to selectively re-size the requested content, convert the requested content from color to black and white, crop the requested content, dither the requested content, flip the requested content or to change a number of colors of the requested content (see Granade; par. 0010, 0039; see that the format suitable for the mobile device contains any number of the steps above).

31. (Original) The computer system of claim 20, wherein the first proxy server is also configured to store a copy of the converted content in a cache memory (see Granade; 0029, and 0030; see that the methods are invoked and stored and passed to be compared to mobile presentation server for format and display adaptation to the mobile device).

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32. (Original) The computer system of claim 31, wherein the first proxy server is configured to deliver the copy of the converted content from the cache memory if a valid copy of the converted content is present in the cache memory (see Granade; 0029, and 0030; see that the methods are invoked and stored and passed to be compared to mobile presentation server for format and display adaptation to the mobile device).

33. (Original) The computer system of claim 20, wherein the type of mobile device includes make and model information of the mobile device (Granade; par. 0029; and 0058; see that make and model are two of the many characteristics of a mobile device).

34-35. (Canceled)

36. (Original) The computer system of claim 20, wherein the content is of a type selected from a group including image, video, audio, audio stream and video stream (see Granade; 0024, and 0027-0029).

37. (Original) The computer system of claim 36, wherein the reference format is different for each type of content (see Granade; par. 0061; the reference format depends on the conversion choice).

38. (Original) The computer system of claim 20, wherein the first proxy server is a software module and wherein the address of the content in the reference format is passed as an argument to the software module (Granade; par. 0081; see that the mobile application server 1014, mobile presentation server components 1016 can all be represented as software modules and it would have been obvious for an ordinary skill in

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the art, at the time the invention was made to us programming arguments to reference such software modules as indicated by the Applicants).

### ***Conclusion***

4. ***This action is made Non-Final.*** Any inquiry concerning this communication or earlier communications from examiner should be directed to Jude Jean-Gilles whose telephone number is (571) 272-3914. The examiner can normally be reached on Monday- Friday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tonia Dollinger, can be reached on (571) 272-4170. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-3301.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-0800.

/Jude J Jean-Gilles/

Primary Examiner, Art Unit 2443

JJG

February 19, 2009